ABSTRACT OF THE DISCLOSURE

A nonlinear distortion compensating circuit for compensating for a nonlinear distortion caused by a power amplifier for amplifying an input signal has a power calculator for calculating a power value of the input signal, an operating point setting unit for calculating an apparent power value from temperature information, supplied from an external source, representative of the measured temperature of the power amplifier and the power value calculated by the power calculator, based on a relationship, given beforehand to the operating point setting unit, between input vs. output characteristics of the power amplifier and the temperature of the power amplifier, an inverse characteristics calculator for calculating an inversion of the nonlinear distortion from inverse characteristics data, given beforehand to the inverse characteristics calculator, and a complex multiplier for adding the inversion calculated by the inverse characteristics calculator to the input signal.